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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/541,788	07/11/2005	Gunther Hollrigl	05-418	4226
34704	7590	12/12/2008	EXAMINER	
BACHMAN & LAPOINTE, P.C. 900 CHAPEL STREET SUITE 1201 NEW HAVEN, CT 06510			MORILLO, JANELL COMBS	
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/541,788	Applicant(s) HOLLRIGL ET AL.
	Examiner Janelle Morillo	Art Unit 1793

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED. (35 U.S.C. § 133).

Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) Responsive to communication(s) filed on 14 October 2008.

2a) This action is FINAL. 2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) Claim(s) 20-29 and 38 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) Claim(s) _____ is/are allowed.

6) Claim(s) 20-29 and 38 is/are rejected.

7) Claim(s) _____ is/are objected to.

8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) Notice of References Cited (PTO-892)
 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
 3) Information Disclosure Statement(s) (PTO-1668)
 Paper No(s)/Mail Date _____

4) Interview Summary (PTO-413)
 Paper No(s)/Mail Date _____

5) Notice of Informal Patent Application
 6) Other: _____

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 10/14/2008 has been entered.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 20-29, 38 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP05-070910A (JP'910).

JP'910 teaches (see abstract, etc) an aluminum alloy comprising (in wt%): 3-8% Zn, 0.5-3.0% Mg, 0.01-0.5% Cu, 0.05-0.30% Zr, balance aluminum, which overlaps the presently claimed alloying ranges of Zn, Mg, Cu, and Zr (cl. 20-29, 38). Concerning the amended transitional phrase “consisting essentially of”, JP'910 does not teach the mandatory presence of elements that are clearly excluded by said claim language. The transitional phrase “consisting essentially of” limits the scope of a claim to the specified materials or steps “and those that do not materially affect the basic and novel characteristic(s)” of the claimed invention. In re Herz,

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537 F.2d 549, 551-52, 190 USPQ 461, 463 (CCPA 1976). For the purposes of searching for and applying prior art under 35 U.S.C. 102 and 103, absent a clear indication in the specification or claims of what the basic and novel characteristics actually are, “consisting essentially of” will be construed as equivalent to “comprising.” See, e.g., PPG, 156 F.3d at 1355, 48 USPQ2d at 1355.

JP'910 does not teach the mandatory presence of Mn, Cr, Fe, Si, or Ti, and therefore meets the maximums in claims 20, 25-29. JP'910 teaches said alloy has excellent strength properties (Table 3, translation). Though JP'910 does not mention the quench sensitivity of said alloy, because the alloy taught by JP'910 substantially overlaps the presently claimed alloy composition, then substantially the same degree of ‘low quench sensitivity’ is expected, as for the instant alloy composition. Concerning the amended claim language of Al₃Zr precipitates, because JP'910 teaches an overlapping alloy composition that has also been age hardened, then substantially the same Al₃Zr precipitates and isotropic grain structure are held to occur for the prior art, as in the instant invention.

The examiner asserts that where the claimed and prior art products are identical or substantially identical in structure or composition, or are produced by identical or substantially identical processes, a prima facie case of either anticipation or obviousness has been established. *In re Best*, 562 F.2d 1252, 1255, 195 USPQ 430, 433 (CCPA 1977). “When the PTO shows a sound basis for believing that the products of the applicant and the prior art are the same, the applicant has the burden of showing that they are not.” *In re Spada*, 911 F.2d 705, 709, 15 USPQ2d 1655, 1658 (Fed. Cir. 1990). Therefore, if the prior art teaches the identical chemical structure, the properties applicant discloses and/or claims are necessarily present. The prima facie case can be rebutted by evidence showing that the prior art products do not necessarily possess the characteristics of the claimed product. *In re Best*, 562 F.2d at 1255, 195 USPQ at 433. See also *Titanium Metals Corp. v. Banner*, 778 F.2d 775, 227 USPQ 773 (Fed. Cir. 1985), see MPEP 2112.01.

Because JP'910 teaches an aluminum alloy composition that substantially overlaps the presently claimed alloying ranges of Zn, Mg, Cu, Zr, Mn, Cr, Fe, Si, and Ti, is held that JP'910 has created a prima facie case of obviousness of the presently claimed invention.

Overlapping ranges have been held to be a *prima facie* case of obviousness, see MPEP § 2144.05. It would have been obvious to one of ordinary skill in the art to select any portion of the range, including the claimed range, from the broader range disclosed in the prior art, because the prior art finds that said composition in the entire disclosed range has a suitable utility.

Additionally, "The normal desire of scientists or artisans to improve upon what is already generally known provides the motivation to determine where in a disclosed set of percentage ranges is the optimum combination of percentages," In re Peterson, 65 USPQ2d at 1379 (CAFC 2003).

Response to Amendment/Arguments

4. In the response filed on October 14, 2008 applicant has submitted various arguments traversing the rejections of record.
5. Applicant's argument that the present invention is allowable over the prior art of record because JP'910 teaches their alloy exhibits minor age hardening at room temperature, achieved by processing to a 'soft' temper (i.e. annealed), and does not teach a process similar to the process used by the instant invention, has not been found clearly persuasive. Though the prior art teaches additional processing steps compared to the inventive alloy (as recited in the specification- i.e. casting, homogenizing, cooling, artificially aging vs. JP'910's process of casting, hot working, softening/heating to 180-320 °C to inhibit room temperature hardening, solution heating quenching and artificially aging [0011]), applicant has not clearly shown the product of the instant invention is materially distinct from the prior art's alloy product of overlapping composition and similar heat treatment. Nor has applicant has not clearly shown

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unexpected results (i.e. low quench sensitivity while maintaining excellent strength, etc) with respect to the prior art of record.

6. Concerning applicant's argument that the prior art does not teach examples within the instant alloying ranges, patents are relevant as prior art for all they contain, and nonpreferred embodiments constitute prior art, MPEP 2123. Disclosed examples and preferred embodiments do not constitute a teaching away from a broader disclosure or nonpreferred embodiments. *In re Susi*, 440 F.2d 442, 169 USPQ 423 (CCPA 1971). "A known or obvious composition does not become patentable simply because it has been described as somewhat inferior to some other product for the same use." *In re Gurley*, 27 F.3d 551, 554, 31 USPQ2d 1130, 1132 (Fed. Cir. 1994).

7. When an invention is defined by providing ranges for the amount of the various components, a *prima facie* case of obviousness arises when the ranges of a claimed composition overlap the ranges disclosed in the prior art. See *In re Peterson*, 315 F.3d 1325, 1329 (Fed. Cir. 2003); *In re Geisler*, 116 F.3d 1465, 1469, 1469 (Fed. Cir. 1997); *In re Woodruff*, 919 F.2d 1575, 1578 (Fed. Cir. 1990); *In re Malagari*, 499 F.2d 1297, 1303 (CCPA 1974). Where the "claimed ranges are completely encompassed by the prior art, the conclusion [that the claims are *prima facie* obvious] is even more compelling than in cases of mere overlap." *Peterson*, 315 F.3d at 1330. Even without complete overlap of the claimed range and the prior art range, a minor difference shows a *prima facie* case of obviousness. *Haynes Int'l v. Jessup Steel Co.*, 8 F.3d 1573, 1577 n.3 (Fed. Cir. 1993). In the instant case, a *prima facie* case of obviousness has been established because the prior art teaches an alloy that broadly overlaps the presently claimed alloy composition. Because of the overlap, it is held that JP'910 has created a *prima facie* case of obviousness of the presently claimed invention.

8. Once a reference teaching product appearing to be substantially identical is made the basis of a rejection, and the examiner presents evidence or reasoning tending to show inherency, the burden shifts to the applicant to show an unobvious difference. "[T]he PTO can require an applicant to prove that the prior art products do not necessarily or inherently possess the characteristics of his [or her] claimed product. Whether the rejection is based on inherency under 35 U.S.C. 102, on *prima facie* obviousness under 35 U.S.C. 103, jointly or alternatively, the burden of proof is the same, and its fairness is evidenced by the PTO's inability to manufacture products or to obtain and compare prior art products." *In re Best*, 562 F.2d 1252, 1255, 195 USPQ 430, 433-34 (CCPA 1977)), see MPEP 2112. Applicant has not clearly shown an unobvious difference between the instant invention and the prior art's product.

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9. Once a *prima facie* case exists, burden is on applicant to show unexpected results- not on examiner to show that there is none. *In re Mayne* 104 F.3d at 1342, 41 USPQ2d at 1454.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Janelle Morillo whose telephone number is (571) 272-1240. The examiner can normally be reached on 7:30 am- 4:00 pm Mon-Wed.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Roy King can be reached on (571) 272-1244. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Roy King/
Supervisory Patent Examiner, Art Unit
1793

/J. M./
Examiner, Art Unit 1793
December 1, 2008